REMARKS

The Examiner has indicated that claims 38-40, 48-50, 54, and 52 are allowable. Applicant has submitted new claims 59-68. Claims 59-66 correspond to claims 38-40, 48-50, 54, and 52..

The Examiner's objection to claim 46 and rejection of claim 8 as indefinite are moot in view of the amendments to the claims.

Claim 8

Applicant has amended claim 8 to include the limitations of claim 37. The Examiner has rejected claim 37 as obvious over Duchon in view of Prais, stating:

> Duchon et al discloses the invention substantially as claimed except for expressly disclosing the response data comprises a patient's paint *[sic]* level and concordance. Prais et al teaches that it is known to have the response data comprises a patient's paint *[sic]* level and concordance ([0035)] for the purpose of assessing the injection with respect to pain, sharpness, and general feeling of the injection. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the response data as taught by Duchon et al to additionally include the response data as taught by Prais et al for the purpose of assessing the injection with respect to pain, sharpness, and general feeling of the injection.

Applicant respectfully disagrees. Duchon is directed to an angiographic injector system and describes that the injection of radiographic contrast material can be synchronized to the coronary artery blood flow using ECG electrical signal, arterial blood pressure waveform analysis, or other timing based on the heart rate. (Duchon, paragraph 109). The "response of the patient" that the examiner relies on in referring to paragraph 21 of Duchon is apparently the ECG electrical signal, arterial blood pressure waveform analysis, or other timing based on the heart rate described in paragraph 109.

Paragraph 35 of Prais describes evaluating three factors (point configuration, lubrication and shield material) of an injection needle with respect to pain, sharpness, and a general feeling of a particular injection to optimize needle design.

It would not have been obvious to one having ordinary skill in the art to modify the response data of Duchon to include the response data of Prais. There is no reason to assess the injection of Duchon with respect to pain, sharpness, and general feeling of the injection. Duchon is not concerned with needle design, but rather with using response data to synchronize the injection of radiographic contrast material to coronary artery blood flow. Assessing an injection with respect to pain, sharpness, and general feeling of the injection has nothing to do with such synchronization.

Furthermore, even if the references could be combined, which applicant does not concede, the combination would not result in the applicant's claimed invention. Contrary to the Examiner's assertion, Prais does not describe or suggest response data comprising concordance. As described by applicant in the paragraph spanning pages 2 and 3 of the specification, concordant means the patient's response is to the pain they are complaining of (e.g., the back pain that led the patient to seek therapy) and non-concordant means the patient's response is to a pain different from their complaint. Assessing an injection with respect to pain, sharpness, and general feeling of the injection does not provide concordance data.

Therefore, applicant submits that claim 8 is patentable over Duchon in view of Prais for at least the reasons discussed above.

Claim 14

Applicant has amended claim 14 to include the limitations of claim 16. The Examiner has rejected claim 16 as anticipated by Duchon and by Hockman, stating:

> In reference to claim 16, Duchon et al additionally discloses wherein the operator includes code to determine the impedance data based upon an actuation of the introducer ([0120)].
>
> Hockman et al discloses... the operator includes code to determine the impedance data based upon an actuation of the introducer (col 3, lns 11-col 4, lns 54; Program Listing).

Applicant respectfully disagrees. The cited references do not describe or suggest determining impedance data indicative of the flow rate-dependent impedance based upon an actuation of an introducer. As described in applicant's specification, empirical determination of the impedance data can be performed by actuating the fluid drive assembly 32. As recited in

amended claim 14, using the determined impedance data, the code corrects pressure data for differences between the pressure created within the spine by the introduction of fluid and the pressure of fluid within the introducer.

Paragraph 120 of Duchon merely relates to limiting flow rate if a measured rate reaches a set value. Duchon does not describe or suggest an operator including code to determine impedance data indicative of impedance based upon an actuation of an introducer, and control of the actuation of the introducer based at least in part upon the impedance data, wherein, using the determined impedance data, the code corrects pressure data for differences between the pressure created within the spine by the introduction of fluid and the pressure of fluid within the introducer, as claimed.

While Hockman does state at col. 4, lines 29-30 that various operational parameters are calculated, there is no indication in Hockman that impedance data, used to correct pressure data for differences between the pressure created within a target by the introduction of fluid and the pressure of fluid within the introducer, is determined based upon an actuation of the introducer. Rather, as described at col. 9, lines 30-59, the parameters used to determine system resistance in Hockman are input or selected by the clinician, read by the system from encoding on the syringe, or calculated from such input or read parameters.

Therefore, applicant submits that claim 14 is patentable over Duchon and over Hockman for at least the reasons discussed above.

Claim 46

Applicant has amended independent claim 46 to recite that the response data is manually inputted directly by the patient, as suggested by the examiner (see the rejection of claim 12 in paragraph 14 of the Examiner's action). The Examiner had rejected claim 46 as anticipated by Duchon. However, Duchon does not describe or suggest such manual input of response data directly by the patient.

Therefore, applicant submits that claim 46 is patentable over Duchon in view of Prais for at least the reasons discussed above.

Applicants do not acquiesce in the Examiner's characterizations of the art. For brevity and to advance prosecution, however, applicants may have not addressed all characterizations of

the art and reserve the right to do so in further prosecution of this or a subsequent application. The absence of an explicit response by the applicants to any of the Examiner's positions does not constitute a concession of the Examiner's positions. The fact that applicants' comments have focused on particular arguments does not constitute a concession that there are not other arguments for patentability of the claims. All of the dependent claims are patentable for at least the reasons given with respect to the claims on which they depend.

Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

Date: May 14, 2007

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